



To: Distribution

From: Mark Goodman, P.E. - Hydraulics Engineer

Date: April 5, 2005

Subject: Hydraulic Reports

Consultant Design			Initial	Attach
Act:	Info	Date 4/8/05		
		Routing		
✓		Bureau Chief		
		Consultant Plans Eng		
		Design Supervisor		
		CTEP Engineer		
		✓ ALL ENGINEERING STAFF		
		✓ DESIGN CONSULTANTS		
		file		

Although many of these items are routinely included in our Hydraulic Reports, to completely address Doug's concerns, we are requesting that in-house staff and consultants preparing hydraulic designs for the Department double check to ensure that all of these items are addressed and included in their Hydraulic Reports.

- a) Q2 and Q100 stages and discharges
- b) Cross sectional area for existing and proposed bridge or culvert (feature)
- c) Cross section, existing and proposed, through feature
- d) Velocities for Q2 and Q100, existing and proposed through feature
- e) Elevation of low beam, existing and proposed
- f) Elevation of thalweg, existing and proposed
- g) Distance from toe of riprap to toe of riprap
- h) For culverts, existing and proposed slope, with invert elevations (inlet and outlet)
- i) Existing longitudinal profile of stream over a distance of 20 bankfull widths, or a minimum of 150 feet up and downstream from the centerline of the feature.
- j) Evaluation with respect to scour of the core drill findings and existing bed surface composition.
- k) Bankfull width from reference reach
- l) Bankfull width through proposed feature
- m) Riffle / pool complex locations
- n) Meander belt width and 100-year floodplain width from reference reach

- o) Ground level and aerial photos
- p) Documentation of recommended culvert embedment for fisheries, bedload passage, or hydraulic requirements.

34: MAG

Distribution:

Hydraulics Section (7 copies)

~~Tom~~ Tom Martin, P.E., Consultant Design Engineer

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X Note to Tom Martin, Consultant Design Bureau: Please distribute to consultants as appropriate.